

REMARKS

Status of the Claims

Claims 13-24 are currently pending in the present application. Claims 1-12 have been canceled without prejudice or disclaimer of the subject matter claimed therein. Claims 13, 16-18, and 24 have been amended. Claims 13-24 are currently under examination.

Amendments to the Claims

Claims 13, 16-18, and 24 have been amended. The amendments to claims 13, 16-18, and 24 do not introduce prohibited new matter. Support for the amendments to claims 13, 16-18 and 24 can be found throughout the specification. Representative support for the amendments to claims 13, 16-18 and 24 is summarized below.

Representative support for the amendment to claim 13 can be found in claim 19.

Representative support for the amendment to claim 16 can be found in original claim 16.

Claims 17 and 18 have been amended to correct the language recited in the claims for consistency in the format of the claims.

Representative support for the amendment to claim 24 can be found in original claim 24.

Objection to the Claim

Claim 24 is objected for containing informalities.

Claim 24 has been amended accordingly to recite “bovine, ovine, caprine, and porcine” to overcome the objection.

Rejections Under § 112, Second Paragraph

Claims 13-24 are rejected as being indefinite.

Claim 13 has been amended to include the step of “transferring said nucleus into the cytoplasm of a recipient oocyte” to overcome the rejection that the claim is incomplete.

The Office Action alleges that the term “controlled proteolysis” renders the claim unclear. Applicants respectfully point out that the term is defined on page 5, line 37 to page 6, line 14 of the specification. The specification provides the conditions for performing “controlled proteolysis.” Thus, the phrase does not render the claims definite.

Claim 16 has been amended to add a unit of weight and to clarify that the molecular

weight refers to that of polyaspartic acids.

The Office Action alleges that the phrase “cytoplasm in the interphase state” is confusing. Applicants respectfully point out that the term is defined on page 7, lines 19-35. Thus, the phrase is not confusing.

Rejections Under § 102

A. Claims 13-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kraemer *et al.* (Kraemer).

Claims 13-17 are directed to a method of reconstituting a non-human mammalian embryo *in vitro* comprising treating a diploid nucleus of a somatic donor cell with controlled proteolysis and induction of isomorphic swelling of the nucleus and transferring the nucleus into the cytoplasm of a recipient oocyte.

Kraemer does not teach the claimed method of reconstituting a non-human mammalian embryo. Although Kraemer discloses isolation of the nuclei and analysis of various polyanions on nuclear swelling, Kraemer does not teach transferring the nucleus to a recipient oocyte. Accordingly, Kraemer does not anticipate the claimed invention.

B. Claims 13-15 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Aaronson *et al.* (Aaronson).

Aaronson does not teach the claimed method of reconstituting a non-human mammalian embryo. Although Aaronson discloses isolation of the nuclei and analysis of the effects of triton X-100 on the nuclei, Aaronson does not teach transferring the nucleus to a recipient oocyte. Accordingly, Aaronson does not anticipate the claimed invention.

C. Claims 13-15 and 17-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wangh *et al.* (Wangh).

Wangh does not teach the claimed method of reconstituting a non-human mammalian embryo. Wangh discloses a method for activating non-dividing cell nuclei for analysis or for reprogramming them for transplantation into an egg. The method of Wangh includes the additional steps of treating the nuclei with an “activating the egg extract” and contacting the nucleus with a “cytostatic factor-containing cytoplasmic extract of a cell in meiotic metaphase

II.” These steps are not included in claim 13. The treating steps of claim 13 only consists of “controlled proteolysis of non-histone proteins” and “induction of an isomorphic swelling of said nucleus.” Claim 13 uses closed language “consisting of” in reciting the steps for treating the nucleus. Thus, claim 13 and its dependent claims do not include the required steps of Wangh. Accordingly, Wangh does not anticipate the claimed invention.

Rejections Under § 103

Claims 13-15 and 17-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wangh *et al.* (Wangh).

As discussed immediately above, Wangh is directed to a method of activating non-dividing cell nuclei for reprogramming them for transplantation into an egg. Wangh is not directed to a method of reconstituting a non-human mammalian embryo. Accordingly, the method of Wangh is directed to a different invention and includes steps that are not recited in claim 13 or its dependent claims.

Moreover, since the method of Wangh is directed to a method of activating non-dividing cell nuclei for reprogramming them for transplantation into an egg, one would not be motivated to modify the method of Wangh to delete the two mandatory steps of treating the nuclei with an activating egg extract and contacting the nuclei with a cytostatic factor extract which are not present in the presently claimed method of reconstituting a non-human mammalian embryo.

Thus, Wangh does not render the claimed invention obvious.

Conclusion

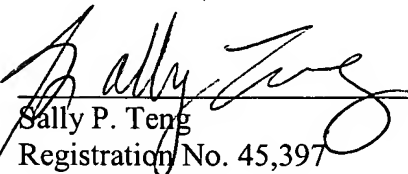
The foregoing amendments and remarks are being made to place the application in condition for allowance. Applicants respectfully request entry of the amendments, reconsideration, and the timely allowance of the pending claims. A favorable action is awaited. Should an interview be helpful to further prosecution of this application, the Examiner is invited to telephone the undersigned.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time

under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,
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